Tennessee Grade 5

# LineUp With Math<sup>™</sup> Alignment Academic Standards: Mathematics

## **Number and Operation**

**Content Standard 1.0** The student will develop number and operation sense needed to represent numbers and number relationships verbally, symbolically, and graphically and to compute fluently and make reasonable estimates in problem solving.

#### **Learning Expectations and Accomplishments**

- 5.1.3 Solve problems, compute fluently, and make reasonable estimates.
  - h. solve real-world problems using decimals, fractions, and percents.

### LineUp With Math<sup>TM</sup> Activities

- --Use an interactive simulator plus calculation worksheets to apply proportional reasoning to identify and resolve distance, rate, time conflicts in air traffic control.
- --Use percent relationships to resolve distance, rate, time conflicts in air traffic control.

### Geometry

**Content Standard 3.0** The student will develop an understanding of geometric concepts and relationships as the basis for geometric modeling and reasoning to solve problems involving one-, two-, and three-dimensional figures.

#### **Learning Expectations and Accomplishments**

- 5.3.4 Use visualization, spatial reasoning, and geometric modeling to solve problems.
  - b. create and describe mental images of objects, patterns, and paths;
  - d. use visualization and spatial reasoning to solve real-world problems.

## LineUp With Math<sup>™</sup> Activities

- --Use an interactive simulator plus calculation worksheets to model and resolve air traffic control conflicts.
- -- Predict and plot the relative motion of two or more airplanes on given paths.

#### Measurement

**Content Standard 4.0** The student will become familiar with the units and processes of measurement in order to use a variety of tools, techniques, and formulas to determine and to estimate measurements in mathematical and real-world problems.

#### **Learning Expectations and Accomplishments**

- 5.4.1 Understand measurable attributes of objects and the units, systems, and processes of measurement.
  - a. demonstrate understanding of the concepts of length, perimeter, circumference, area, weight, capacity, volume, elapsed time, and angle measure;

# LineUp With Math<sup>TM</sup> Activities

--Apply mathematics to solving distance, rate, and time problems for aircraft conflict scenarios.

5.4.2 Apply appropriate techniques, tools, and formulas to determine measurements.

a. solve real-world problems involving measurement and elapsed time;

--Apply mathematics to solving distance, rate, and time problems for aircraft conflict scenarios.